

SECTION 3.0 ENVIRONMENTAL SETTING

The APE is located within the Upper Coastal Plain Physiographic Province and Mid-Drainage Geographic Zone in an area that is gently sloping to hilly at an approximate elevation of 24 to 72 feet (5 to 21 meters) above mean sea level (Figure 3.1; see Figure 1.2). The APE is situated on nearly level uplands at elevations of approximately 48 to 51 feet (14.6 to 15.5 meters) above mean sea level. The APE is drained by the headwaters of an unnamed tributary of Augustine Creek which is located roughly 2,236 feet southeast of the APE. Like many streams in the Upper Coastal Plain, Augustine Creek flows easterly into the Delaware River. Scott Run is situated roughly 3,793 feet northwest of the APE and drains into the Chesapeake and Delaware Canal. The canal also drains into the Delaware River.

The APE is underlain by mid-Pleistocene Columbia Formation sediments derived from glacial outwash. The Columbia Formation contains fine to coarse feldspathic quartz sand as well as quartzite, quartz and chert gravels deposited by high discharge as streams crossed the Fall Line and entered onto the Coastal Plain (Ramsey 2005; Jordan 1964; Spoljaric and Woodruff 1970).

Soil within the APE is mapped as Reybold silt loam, 0 to 2 percent slopes (ReA) (Figure 3.2). Reybold soils are characterized as nearly level with high silt loamy eolian deposits over fluvio-marine deposits. Reybold soils are classified as well-drained soils with moderately high to high water movement, and no puddling or flooding (NRCS 2013). A representative profile for this soil type found within the APE is presented as Table 3.1.

Table 3.1: Typical soil profile within the APE (NRCS 2013).

Soil Series (Soil Type)	Soil Characteristics	Drainage	Landform
Reybold Silt Loam (ReA: 0-2% slopes)	Ap (0-25cm) Dark Yellowish Brown (10YR 4/4) Silt Loam Bt1 (25-46cm) Dark Yellowish Brown (10YR 4/6) Silt Loam with Faint Brown (7.5YR 4/6) Clay Films Bt2 (46-72 cm) Yellowish Brown (10YR 5/6) Silt Loam with Faint Strong Brown (7.5YR 4/6) Clay Films 2BC (76-99cm) Yellowish Brown (10YR 5/8) Gravelly Coarse Sandy Loam 2C1 (99-124cm) Reddish Yellow (7.5YR 6/8) Gravelly Coarse Sandy Loam 2C2 (124-183cm) Yellowish Brown (10YR 5/8) Coarse Sandy Loam	Well drained	Upland Interfluves

The natural vegetation of the APE is classified as oak-chestnut forest, composed of several species of oak, as well as poplar, beech, chestnut, hickory, maple, ash, cherry, elm, walnut and butternut. Since the eighteenth century, agricultural use in the vicinity of the APE has altered the local environment, which is now composed of mixed agricultural fields.

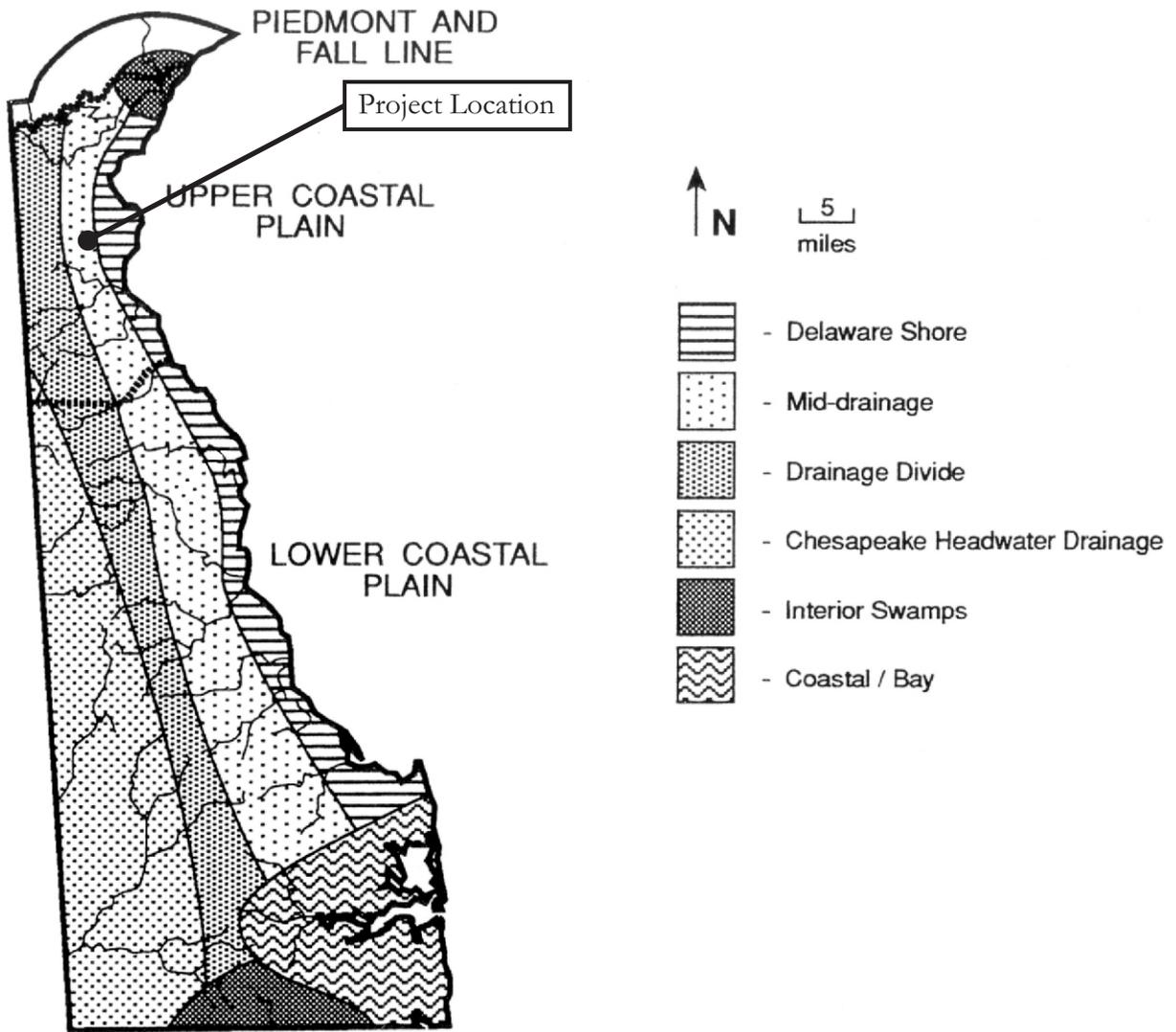


Figure 3.1:

Physiographic Provinces Map
 (Delaware Physiographic Zones, redrawn from Custer 1986).



Figure 3.2:

Soils Map
 (Soils Map of the Cultural Resource Study Area from Natural Resources Conservation Service, Department of Agriculture, Soil Survey Geographic [SSURGO]).

